

CONN
S
43
.E22
no.842

Please
handle this volume
with care.

The University of Connecticut
Libraries, Storrs



3 9153 01143702 9

7-Ag 8/1.3: 842

*The
Connecticut
Agricultural
Experiment
Station,
New Haven*

Inspection of Commercial Fertilizers — 1986

BY LESTER HANKIN


*Bulletin 842
October 1986*

STATE

RECEIVED
FEB 05 1987
UNIVERSITY LIBRARY
UNIVERSITY OF CONNECTICUT

447
3
A 2/11/87
no. 842
CONN
S
43
.E22
no. 842

GOVERNMENT
FEB 15 1987
UNIVERSITY LIBRARY
UNIVERSITY OF CONNECTICUT



Digitized by the Internet Archive
in 2011 with funding from
LYRASIS members and Sloan Foundation

<http://www.archive.org/details/inspectionsofcom842hank>

Inspection of Commercial

Fertilizers — 1986

BY LESTER HANKIN

During 1986, 318 official samples of fertilizer were collected by inspectors of the Connecticut Department of Agriculture and analyzed by chemists of the Station for authenticity of guaranteed analysis that is stated on the label and for compliance with State Regulations. Other fertilizer samples were tested for farmers and Station research but are not included in this Bulletin. Although all guaranteed analyses were examined, only the results for the major plant nutrients of nitrogen, phosphoric acid, and potash are presented in this Bulletin.

Table 1 shows individual samples from 45 manufacturers. The numbers preceding the brand name are the guaranteed analyses. For example, 10-10-10, indicates the guaranteed percentage for nitrogen (N), phosphoric acid (P_2O_5), and potash (K_2O), in that order. The actual content is then shown, with deficiencies indicated by a dash (-) following the amount found. Table 2 summarizes for each manufacturer the number of guarantees examined for each plant nutrient, the percentage of samples not meeting their guarantee, and the average percentage of guarantee found. Table 3 shows the tonnage of the various grades of mixed fertilizer sold in Connecticut. Only grades prepared by at least three manufacturers are shown; other grades are placed in the miscellaneous category. The tonnage of fertilizer material and mixed fertilizer sold in Connecticut is shown in Table 4.

Two types of variability affect fertilizer analysis and must be considered in judging deficiencies. The first is the variability among different batches of the same grade from a manufacturer. This variability can be noted in Table 1 by examining the analyses of the same grade from the same manufacturer. The second type of variability is between duplicate analyses of the same sample. The variability among duplicate analyses is shown in the statement: the mean difference between duplicates for nitrogen, phosphoric acid, and potash is about two-tenths percent.

Fertilizer samples are deemed deficient in any nutrient if the analysis is below the guarantee by more than the values established by the Association of American Feed Control Officials. Overall, 311 guarantees for nitrogen were made and 4.5 percent were deficient, 298 guarantees for phosphoric acid and 9.1 percent were deficient, and 297 guarantees for potash and 8.8 percent were deficient. In 1985 the percentage of deficiencies for nitrogen were 7.7 percent, for phosphoric acid 8.7 percent, and for potash 13.7 percent. Thus there was a decline in percentage of deficiencies for nitrogen and potash, and deficiencies for phosphoric acid remained about the same. For the 318 samples reported in this Bulletin, 17.6 percent were deficient in at least one nutrient.

Analyses were performed by Helen Kocaba, Mamie Pyles, Mary Alice DeFrancesco, and Jerry Smart. Samples were collected by Marlene Abt, John Chapman, Jay Dippel, David Nisely, and Alton VanDyke under the direction of Kenneth Veit. Fertilizer laws are administered by the Commissioner of Agriculture.

Lester Hankin, Chief, Analytical Chemistry

TABLE 1--ANALYSIS OF INDIVIDUAL SAMPLES OF COMMERCIAL FERTILIZERS

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|-----------------------------------|------|------|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| A. H. Hoffman, Inc. | | | | | | |
| 01 | 01 | 01 | Cow Manure | 1.2 | 1.0 | 1.1 |
| Ag. Ind. Mfg. Corp. | | | | | | |
| 37 | | | Sulfur Coated Urea | 40.1 | | |
| Agricultural Prod. Co. | | | | | | |
| 05 | 10 | 05 | All Purpose Plant Food | 5.7 | 6.8- | 5.2 |
| 10 | 06 | 04 | Guardian Gro-Green Lawn Fert | 10.3 | 6.1 | 4.0 |
| Agway, Inc. | | | | | | |
| | 10 | 40 | Blend-Rite Alfa B WB | | 9.4 | 44.7 |
| | 25 | 25 | Agway Blend-Rite | | 24.9 | 27.0 |
| 04 | 12 | 04 | Agway Bulb Bloomer Plant Food | 4.5 | 19.2 | 5.7 |
| 05 | 10 | 05 | Agway Garden Plant Food | 4.8 | 9.4 | 5.8 |
| 05 | 10 | 10 | Agway Blend-Rite | 6.3 | 12.5 | 7.5- |
| 08 | 16 | 16 | Agway Super Garden Pl Fd Lawn St | 7.4 | 14.4- | 16.7 |
| 10 | 06 | 04 | Agway Turfood Fert | 10.7 | 10.0 | 4.6 |
| 10 | 10 | 10 | Agway Blend-Rite | 8.9- | 9.8 | 8.4- |
| 10 | 10 | 10 | Agway Tree & Shrub Plant Food | 11.1 | 10.0 | 11.0 |
| 10 | 20 | 20 | Agway Blend-Rite | 11.1 | 23.0 | 17.7- |
| 12 | 16 | 32 | Agway Bulk Blend | 12.1 | 15.5 | 39.5 |
| 15 | 08 | 12 | Agway Blend-Rite | 15.0 | 9.0 | 12.1 |
| 16 | 32 | 16 | Agway 10% Water Sol | 15.7 | 33.1 | 15.9 |
| 19 | 10 | 25 | Agway Bulk Blend | 19.1 | 11.0 | 27.6 |
| 19 | 11 | 23 | Agway Bulk Blend | 20.1 | 11.2 | 24.7 |
| 20 | 20 | 20 | Agway Sol-U-Green w/micronutr | 19.7 | 21.7 | 21.7 |
| 20 | 20 | 20 | Agway Sol-U-Green | 21.9 | 21.3 | 20.7 |
| 20 | 20 | 20 | Agway Sol-U-Green Plant Food | 22.4 | 22.7 | 23.7 |
| 21 | 17 | 17 | Agway Bulk Blend | 21.2 | 16.3 | 24.2 |
| 22 | 06 | 08 | Agway Greenlawn Plus | 24.0 | 4.5- | 10.4 |
| 23 | | 28 | Agway Bulk Blend | 24.6 | | 28 |
| 28 | 10 | 13 | Agway Bulk Blend | 29.7 | 11.6 | 19.4 |
| 30 | 10 | 10 | Agway Acid Green | 30.1 | 11.6 | 10.6 |
| 30 | 10 | 10 | Agway Acid Green w/micronutrients | 30.7 | 13.4 | 11.3 |
| American Hdwe. Supply Co. | | | | | | |
| 01 | 01 | 01 | Servi Star Composted Cow Manure | 1.0 | 1.2 | 1.2 |
| Atlas Fish Fertilizer Co. | | | | | | |
| 05 | 01 | 01 | Atlas Fish Emulsion Plant Food | 5.6 | 1.6 | 1.9 |
| 05 | 01 | 01 | Atlas Fish Emulsion Plant Food | 5.7 | 1.6 | 1.8 |
| Cadwell & Jones | | | | | | |
| 4.23 | 7.16 | 3.19 | C & J - HPLK | 4.8 | 9.1 | 3.7 |
| 4.59 | 8.20 | 3.98 | C & J BVHP w/Boron | 4.9 | 8.7 | 5.9 |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|-----------------------------------|------|------|--------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| Cadwell & Jones (Continued) | | | | | | |
| 4.6 | 9.7 | 7.0 | C & J - HHPK #2 | 5.1 | 10.3 | 9.1 |
| 4.60 | 9.7 | 7.0 | C & J - HHPK #1 | 4.9 | 11.1 | 11.3 |
| 4.64 | 4.41 | 6.27 | C & J - Hadley LPVHK | 5.6 | 3.9 | 5.5- |
| 4.65 | 5.69 | 5.29 | C & J - Hadley BHK | 4.9 | 6.6 | 6.0 |
| 4.65 | 5.69 | 5.29 | C & J - Clark BHK | 4.8 | 6.4 | 5.2 |
| 4.65 | 5.69 | 5.29 | C & J - BHK | 4.8 | 6.7 | 6.2 |
| 4.68 | 7.07 | 4.14 | C & J - Clark BHP | 4.7 | 7.6 | 6.5 |
| 4.68 | 7.07 | 4.14 | C & J - BHP | 4.9 | 7.5 | 4.8 |
| 4.70 | 4.47 | 5.36 | C & J - Hadley LPHK | 4.5 | 5.0 | 7.4 |
| 4.73 | 7.16 | 3.19 | C & J - Clarke HPLK | 4.9 | 8.8 | 4.5 |
| 4.76 | 3.27 | 5.42 | C & J - Hadley LLPHK #2 | 5.4 | 3.8 | 5.6 |
| 4.76 | 3.27 | 5.42 | C & J - Hadley LLPHK #1 | 5.4 | 3.4 | 5.9 |
| 4.79 | 4.49 | 4.24 | C & J - Hadley BLP #1 | 6.0 | 4.2 | 4.8 |
| 4.79 | 4.49 | 4.24 | C & J - Hadley BLP #2 | 5.0 | 3.9 | 4.4 |
| 4.80 | 5.88 | 3.24 | C & J - Clark BLK | 5.3 | 7.3 | 4.1 |
| 4.85 | 3.33 | 4.29 | C & J - Hadley LLP | 5.2 | 3.2 | 5.0 |
| 4.88 | 2.38 | 4.32 | C & J - Hadley VLLP | 5.2 | 2.4 | 4.4 |
| 4.88 | 5.98 | 2.33 | C & J w/Boron - Z Bulk | 5.6 | 6.2 | 2.4 |
| 4.88 | 5.98 | 2.33 | C & J Bulk w/Boron - 1 | 6.0 | 6.3 | 2.3 |
| 05 | 10 | 05 | C & J Surge | 5.0 | 8.1- | 4.4 |
| 05 | 10 | 10 | C & J Specialty | 6.0 | 11.9 | 11.8 |
| 05 | 10 | 10 | C & J Surge 25% Org Nit | 4.1- | 9.9 | 10.4 |
| 05 | 10 | 10 | C & J Surge | 5.1 | 10.3 | 9.2 |
| 05 | 10 | 10 | C & J Surge | 6.5 | 11.0 | 10.2 |
| 05 | 10 | 10 | C & J Surge | 6.0 | 5.2- | 5.4- |
| 5.40 | 3.80 | 3.70 | C & J - Hadley LLPLKL Ca | 6.0 | 3.9 | 4.2 |
| 07 | 07 | 07 | C & J Surge Hi-Pro | 6.0- | 13.3 | 8.1 |
| 7.23 | 7.17 | 7.16 | C & J - Clark Sidedress East | 5.1- | 9.3 | 8.3 |
| 7.23 | 7.17 | 7.16 | C & J - Clark Sidedress West | 8.3 | 10.8 | 7.3 |
| 7.23 | 7.17 | 7.16 | C & J - Sidedress #1 | 8.0 | 10.2 | 7.6 |
| 7.23 | 7.17 | 7.16 | C & J - Hadley Sidedress #2 | 5.8- | 8.8 | 7.4 |
| 7.23 | 7.17 | 7.16 | C & J - Hadley Sidedress #1 | 6.3- | 8.8 | 9.0 |
| 7.23 | 7.17 | 7.16 | C & J - Sidedress #2 | 7.5 | 7.2 | 8.5 |
| 10 | 02 | 08 | C & J Specialty | 12.1 | 1.4 | 8.1 |
| 10 | 06 | 04 | C & J Surge Lawn & Garden Fert | 10.2 | 5.6 | 3.7 |
| 10 | 06 | 04 | C & J Surge | 10.3 | 6.2 | 2.8 |
| 10 | 08 | 02 | C & J Specialty Fert | 12.6 | 10.0 | 1.9 |
| 10 | 10 | 10 | C & J | 10.2 | 9.4 | 9.6 |
| 10 | 10 | 10 | C & J Specialty | 11.4 | 10.0 | 11.0 |
| 10 | 10 | 10 | C & J Specialty | 10.3 | 10.2 | 9.3 |
| 10 | 20 | 20 | C & J Specialty | 10.3 | 23.2 | 23.3 |
| 15 | 10 | 10 | C & J Bulk | 15.4 | 9.8 | 10.9 |
| 20 | 10 | 10 | C & J Super Surge | 20.2 | 9.4 | 15.1 |
| 23 | 06 | 09 | C & J Surge Lawn & Garden | 25.5 | 6.1 | 10.6 |
| 30 | | | C & J Specialty 50% SCU | 31.7 | | |
| 33 | 10 | 10 | C & J Surge Turf Prod Soln | 33.9 | 10.1 | 14.5 |
| 45 | | | C & J Specialty Urea | 45.2 | | |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|-----------------------------------|----|------|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| Cedar Point Supply | | | | | | |
| 46 | | Urea | | 44.5 | | |
| Chevron Chem. Co. | | | | | | |
| 03 | 10 | 03 | Ortho U-Start Vit B-1 Plnt St | 2.9 | 10.6 | 3.0 |
| 05 | 01 | 01 | Ortho Fish Emulsion Fert | 5.7 | 1.5 | 1.6 |
| 05 | 10 | 05 | Ortho House Plant Fd + Minor Elem | 5.6 | 9.6 | 5.5 |
| 06 | 09 | 05 | Ortho Liq Afr Violet Fd | 6.7 | 9.0 | 5.1 |
| 06 | 18 | 06 | Ortho Tomato & Vegetable Food | 6.8 | 18.5 | 6.3 |
| 08 | 10 | 08 | Ortho Vegetable Food | 8.6 | 10.6 | 9.0 |
| 08 | 12 | 04 | Ortho Rose Food | 10.9 | 14.9 | 4.9 |
| 10 | 07 | 07 | Ortho Azalea/Camellia/Rhod Fd | 10.8 | 8.7 | 8.3 |
| 10 | 08 | 07 | Ortho Fern & Ivy Fd + Minor Elem | 12.0 | 8.4 | 7.2 |
| 10 | 10 | 10 | Ortho General Purpose Plant Food | 11.0 | 10.4 | 10.5 |
| 10 | 12 | 06 | Ortho Tomato Food | 10.6 | 15.0 | 7.6 |
| 12 | 06 | 06 | Ortho-Gro Liquid Plant Food | 13.1 | 5.5 | 5.9 |
| 12 | 06 | 06 | Ortho-Gro Liquid Plant Food | 13.0 | 6.3 | 6.6 |
| 14 | 07 | 07 | Ortho Evergreen, Tree & Shrub Fd | 21.2 | 9.6 | 7.9 |
| Clarel Laboratories, Inc. | | | | | | |
| | 06 | 05 | Granny's Bl Bloss for Afr Violet | | 7.2 | 6.7 |
| 01 | 07 | 06 | Cactus Juice for Cactus | 0.8 | 6.8 | 6.1 |
| 02 | 05 | 04 | Jungle Juice For All Fol Plants | 2.4 | 5.9 | 5.8 |
| Clinton Nursery Prod. | | | | | | |
| 04 | 10 | 10 | New Era Flowering Plant Food | 5.0 | 9.2 | 12.3 |
| 05 | 01 | 01 | New Era Fish Emulsion | 5.5 | 1.6 | 1.7 |
| 05 | 12 | 09 | New Era Flowering Plant Food | 6.2 | 13.5 | 10.5 |
| 07 | 15 | 08 | New Era Plant Food | 5.0- | 14.8 | 9.3 |
| 08 | 08 | 08 | New Era Plant Food | 9.2 | 8.3 | 8.9 |
| Crop Production Services | | | | | | |
| | 20 | | CPS Gran Super | | 22.1 | |
| 03 | 08 | 35 | CPS w/Mg + Zn | 5.4 | 10.9 | 30.7- |
| 04 | 04 | 15 | CPS w/Zn & Boron | 5.0 | 3.3 | 19.2 |
| 04 | 04 | 15 | CPS w/Zn & Boron | 4.1 | 5.1 | 16.3 |
| 05 | 10 | 10 | CPS | 5.6 | 11.3 | 9.9 |
| 10 | 06 | 04 | Agrico Village Green w/50% Org N | 10.2 | 6.6 | 4.8 |
| 10 | 06 | 04 | Agrico Village Green | 10.1 | 6.7 | 7.0 |
| 10 | 08 | 10 | CPS Tobacco | 10.3 | 10.3 | 10.3 |
| 10 | 10 | 10 | Agrico Village Green Specialty | 7.9- | 11.2 | 10.3 |
| 10 | 10 | 10 | CPS | 10.3 | 11.1 | 10.0 |
| 10 | 10 | 10 | CPS | 10.0 | 10.7 | 14.4 |
| 10 | 10 | 10 | Agrico Village Green Specialty | 10.0 | 8.0- | 9.4 |
| 10 | 20 | 20 | CPS | 10.6 | 16.8- | 16.9- |
| 15 | 10 | 10 | CPS | 16.1 | 14.2 | 6.7- |
| 15 | 15 | 15 | CPS | 16.8 | 18.5 | 12.8- |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|--------------------------------------|----|----|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| Crop Production Services (Continued) | | | | | | |
| 19 | 19 | 19 | CPS | 16.3- | 18.6 | 20.9 |
| 20 | 10 | 10 | CPS | 21.4 | 10.0 | 23.7 |
| 21 | 10 | 10 | Agrico | 23.4 | 11.8 | 11.8 |
| 24 | 06 | 10 | Agrico Village Green Spec 40% Org | 24.6 | 6.8 | 10.5 |
| Dexol Industries | | | | | | |
| 05 | 02 | 02 | Dexol Fish Emulsion | 5.2 | 3.2 | 1.8 |
| 05 | 02 | 02 | Dexol Fishol Fish Emulsion | 6.3 | 3.0 | 2.6 |
| 10 | 10 | 05 | Dexol Tender Leaf House Plant Fd | 10.3 | 9.9 | 5.2 |
| 10 | 10 | 05 | Dexol Tender Leaf House Plant Fd | 10.4 | 10.3 | 5.8 |
| Earth Gro | | | | | | |
| 01 | 01 | 01 | Valley Farms Composted Cow Manure | 1.3 | 0.6- | 0.4- |
| Espoma Co. | | | | | | |
| 04 | 03 | 02 | Espoma Plant-tone/Bedding Plants | 6.2 | 8.0 | 2.7 |
| 04 | 06 | 04 | Espoma Holly Tone | 5.8 | 7.9 | 6.8 |
| 04 | 07 | 10 | Espoma High Organic Tomato Food | 5.8 | 12.7 | 8.6- |
| 04 | 12 | | Espoma Bone Meal | 5.4 | 20.9 | |
| Estech, Inc. | | | | | | |
| | 20 | | Gro-Tone Super Phosphate | | 20.8 | |
| 04 | 10 | 10 | Vigoro Evergreen Food | 6.0 | 7.2- | 10.0 |
| 05 | 10 | 05 | Perk-Up Fert Plant Food | 6.1 | 9.3 | 4.8 |
| 05 | 10 | 10 | Red Steer Fert | 5.6 | 6.4- | 7.7- |
| 06 | 08 | 06 | Gro-Tone Evergreen Food 30% Org N | 6.2 | 5.4- | 5.9 |
| 06 | 09 | 05 | Vigoro Rose Food | 6.1 | 4.1- | 3.7- |
| 10 | 06 | 04 | Perk-Up Lawn Food | 10.1 | 7.5 | 4.0 |
| 10 | 10 | 10 | Estech Harvest King Fert | 10.4 | 8.0- | 7.7- |
| 15 | 15 | 15 | Estech Harvest King Fert | 15.7 | 13.3- | 11.6- |
| 18 | 05 | 10 | Woodace Nurs Fert Top Dress Spec | 18.8 | 5.9 | 12.7 |
| 21 | 03 | 16 | Slow Par Ex Release Fert w/BDV | 22.2 | 1.4- | 20.9 |
| 21 | 04 | 10 | Woodace Nursery Fert | 21.6 | 2.7- | 15.1 |
| 22 | 03 | 11 | Gro-Tone Crabgrass Prev/Lawn Fert | 22.2 | 4.0 | 11.7 |
| 24 | 04 | 12 | Par Ex with BDV Slow Release Fert | 22.7- | 3.7 | 16.4 |
| 25 | 03 | 03 | Super K-Gro Weed & Feed Nor Form | 29.8 | 3.0 | 4.2 |
| 10 | 06 | 04 | Gro-tone Lawn Craft | 10.1 | 6.2 | 4.1 |
| Grassroots, Nature's Way, Inc. | | | | | | |
| 15 | 08 | 05 | Vita Tree/Tree & Shrub Root Fd | 15.3 | 6.2- | 5.4 |
| H. K. Webster Co., Inc. | | | | | | |
| 10 | 03 | 06 | Blue Seal Turf Green - 50% Org N | 12.1 | 3.1 | 7.5 |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|-----------------------------------|----|----|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| Hy-Trous Corp. | | | | | | |
| 04 | 12 | 04 | Hy-Trous African Violet Liq Fert | 4.6 | 13.5 | 5.1 |
| 05 | 10 | 05 | Hy-Trous Liquid Fert | 3.9- | 9.7 | 5.1 |
| 05 | 10 | 05 | Hy-Trous Liquid Fert | 5.4 | 10.2 | 5.5 |
| Hyponex Corp. | | | | | | |
| 01 | 01 | 01 | FertiLife Composted Cow Manure | 1.1 | 1.1 | 1.0 |
| 05 | 10 | 05 | Hyponex House Plant Food | 3.7- | 10.4 | 5.6 |
| 06 | 06 | 06 | Hyponex House Plant Food | 4.0- | 6.4 | 7.4 |
| 06 | 06 | 06 | Hyponex House Plant Food | 6.0 | 6.4 | 6.7 |
| 06 | 12 | 06 | Hyponex Plnt Fd Stks/Flow Plnts | 8.0 | 13.1 | 6.3 |
| 06 | 18 | 06 | Hyponex Tomato Fert Spikes | 5.9 | 19.2 | 6.7 |
| 07 | 06 | 19 | Hyponex Plant Food | 7.6 | 7.2 | 19.8 |
| 07 | 06 | 19 | Hyponex House Plant Food | 7.1 | 6.7 | 19.7 |
| 08 | 04 | 02 | Hyponex All-Org Fish Br Plnt Fd | 8.9 | 7.0 | 2.9 |
| 10 | 05 | 05 | Hyponex Bug Dart & Plant Food | 13.8 | 5.6 | 6.1 |
| 10 | 05 | 05 | Hyponex Foliage Plant Food Sticks | 12.8 | 5.6 | 6.4 |
| 10 | 05 | 05 | Hyponex Bug Dart + Plant Food | 14.0 | 6.1 | 5.7 |
| 10 | 05 | 05 | Hyponex Bug Dart & Plant Food | 13.4 | 6.0 | 5.5 |
| 14 | 14 | 14 | Hyponex Time Rel House Plnt Fd | 16.0 | 13.8 | 14.8 |
| 15 | 10 | 09 | Hyponex Tree & Shrub Fert Spikes | 15.7 | 12.5 | 9.8 |
| 15 | 30 | 15 | Hyponex Plant Food | 14.8 | 30.8 | 17.0 |
| International Spike, Inc. | | | | | | |
| 05 | 15 | 15 | Jobe's Spikes/Prod Fruit Trees | 11.8 | 17.2 | 18.4 |
| 08 | 24 | 08 | Jobe's Fert Spikes for Prize Tom | 8.4 | 28.4 | 8.3 |
| 08 | 24 | 08 | Jobe's Fert Spikes for Tomatoes | 10.6 | 24.5 | 9.9 |
| 08 | 24 | 08 | Jobe's Fert Spikes for Tomatoes | 12.5 | 25.3 | 6.2- |
| 09 | 08 | 07 | Jobe's Fert Spikes for Azaleas | 9.6 | 9.7 | 7.2 |
| 09 | 08 | 07 | Jobe's Fert Spikes/Azal/Cam/Rhod | 14.9 | 10.5 | 9.6 |
| 10 | 05 | 05 | Jobe's Spikes-Insecticide w/Fert | 14.5 | 6.4 | 7.3 |
| 10 | 10 | 04 | Jobe's Plant Food Spikes | 12.1 | 11.1 | 4.8 |
| 10 | 10 | 04 | Jobe's Plant Fd Spks/Beaut Plnts | 10.1 | 11.7 | 5.5 |
| 12 | 06 | 08 | Jobe's Fert Spikes/Evrgrn Trees | 16.1 | 12.1 | 10.1 |
| 12 | 18 | 06 | Jobe's Spikes for Roses | 16.3 | 21.9 | 7.1 |
| 13 | 04 | 05 | Jobe's Plant Food Spikes | 12.6 | 5.7 | 7.6 |
| 13 | 04 | 05 | Jobe's Plant Food Spikes | 13.5 | 5.5 | 7.5 |
| 14 | 04 | 04 | Jobe's Spikes for Evergreens | 17.5 | 5.2 | 7.2 |
| 14 | 08 | 04 | Jobe's Spikes for Flowering Shrbs | 18.2 | 9.7 | 5.5 |
| 15 | 03 | 03 | Jobe's Spikes for Evergreen Trees | 18.2 | 4.0 | 4.9 |
| 15 | 05 | 05 | Jobe's Spikes/Hlthy Young Trees | 20.5 | 5.8 | 3.4- |
| 16 | 02 | 06 | Jobe's Plant Food Spikes | 17.3 | 2.9 | 7.4 |
| 16 | 08 | 08 | Jobe's Spikes for Beautiful Trees | 20.2 | 11.4 | 10.8 |
| 20 | 20 | 20 | Jobe's Plant Fd-Indr/Outdr Plnts | 22.2 | 20.6 | 20.5 |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|--|----|----|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| J. T. Baker Chemical Co. | | | | | | |
| 09 | 09 | 06 | One-A-Bulb Prem Fert Tablets | 9.2 | 9.1 | 7.9 |
| 09 | 09 | 06 | Bag-A-Bug One-A-Bulb | 11.4 | 9.3 | 6.7 |
| Kalium Chemical | | | | | | |
| | | 62 | Muriate of Potash | | | 62.5 |
| Kenco Chemical & Mfg. Corp. | | | | | | |
| 16 | 04 | 08 | Spectroicide Liquid Lawn Food | 18.4 | 4.1 | 8.3 |
| Lebanon Chem. Corp. | | | | | | |
| 09 | 17 | 09 | Greenview Greenstart | 11.4 | 16.7 | 9.7 |
| 30 | 04 | 04 | Greenview Green Power | 30.3 | 3.1- | 4.3 |
| 30 | 04 | 04 | Greenview Green Power | 31.0 | 3.3 | 4.2 |
| Lesco, Inc. | | | | | | |
| 16 | 04 | 08 | Lesco Liqua-Vita Fert | 16.9 | 4.0 | 8.4 |
| Milwaukee Metropolitan Sewerage District | | | | | | |
| 06 | 02 | | Milorganite | 6.4 | 4.0 | |
| Nitrochem, Inc. | | | | | | |
| 34 | | | Bull's Eye Ammonium Nitrate | 34.7 | | |
| NOR-AM Chemical Co. | | | | | | |
| 38 | | | Nitroform Blue Chip | 38.6 | | |
| 38 | | | Nitroform Blue Chip | 38.9 | | |
| O. M. Scott & Sons Co. | | | | | | |
| 27 | 03 | 03 | Scott's Turf Builder | 27.5 | 2.8 | 2.8 |
| 28 | 03 | 03 | Scott's Turf Builder | 28.8 | 3.1 | 3.5 |
| 28 | 03 | 03 | Scott's Turf Builder | 30.2 | 3.0 | 3.4 |
| 32 | 03 | 04 | Scott's ProStep1 Crbgrs Prev/Fert | 32.8 | 4.6 | 6.1 |
| 38 | | | Granuform - HD | 38.8 | | |
| Old Fox Chemical, Inc., | | | | | | |
| 04 | 05 | 04 | Old Fox | 4.9 | 5.7 | 3.1- |
| 04 | 05 | 04 | Old Fox | 5.1 | 7.4 | 4.9 |
| 04 | 05 | 04 | Old Fox | 5.2 | 6.1 | 4.4 |
| 04 | 07 | 08 | Old Fox | 5.8 | 7.1 | 11.6 |
| 04 | 07 | 08 | Old Fox | 5.5 | 8.0 | 10.0 |
| 04 | 07 | 08 | Old Fox | 4.8 | 8.0 | 12.7 |
| 04 | 07 | 08 | Old Fox | 5.2 | 8.9 | 12.2 |
| 04 | 07 | 08 | Old Fox | 5.6 | 7.6 | 10.7 |
| 04 | 07 | 08 | Old Fox | 5.3 | 7.8 | 12.9 |
| 04 | 07 | 08 | Old Fox | 5.4 | 8.1 | 12.0 |
| 04 | 07 | 08 | Old Fox | 5.7 | 7.7 | 11.8 |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|------------------------------------|------|------|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| Old Fox Chemical, Inc. (Continued) | | | | | | |
| 04 | 07 | 08 | Old Fox | 5.2 | 8.3 | 10.9 |
| 04 | 07 | 08 | Old Fox | 5.3 | 8.9 | 9.2 |
| 04 | 07 | 08 | Old Fox | 5.0 | 6.5 | 14.5 |
| 4.59 | 5.62 | 6.20 | Old Fox BVHK | 4.6 | 6.6 | 6.1 |
| 4.59 | 6.94 | 5.22 | Old Fox HPK | 4.9 | 10.6 | 6.0 |
| 4.73 | 5.80 | 4.19 | Old Fox B-2 | 5.0 | 5.7 | 4.8 |
| 4.73 | 5.80 | 4.19 | Old Fox B | 5.0 | 6.1 | 5.1 |
| 4.73 | 5.80 | 4.19 | Old Fox | 5.8 | 10.8 | 4.4 |
| 4.73 | 5.80 | 4.19 | Old Fox B-1 | 5.2 | 6.8 | 4.0 |
| 4.73 | 5.80 | 4.19 | Old Fox B | 5.1 | 6.3 | 4.5 |
| 05 | 10 | 05 | Old Fox Garden Food | 5.5 | 7.1- | 5.6 |
| 05 | 10 | 05 | Old Fox Garden Food | 4.5 | 5.0- | 5.1 |
| 05 | 10 | 10 | Old Fox | 5.4 | 11.0 | 8.5- |
| 05 | 10 | 10 | Old Fox | 5.2 | 8.5- | 7.1- |
| 05 | 10 | 10 | Old Fox | 7.9 | 7.2- | 7.9- |
| 07 | 04 | 12 | Old Fox | 7.2 | 3.3 | 14.0 |
| 10 | 06 | 04 | Old Fox Turf Gran 50% Org Nit | 14.8 | 9.4 | 6.8 |
| 10 | 06 | 04 | Old Fox Turf Food | 10.2 | 5.2- | 4.6 |
| 10 | 08 | 10 | Old Fox for Tobacco | 12.3 | 5.3 | 12.2 |
| 10 | 10 | 10 | Old Fox | 10.3 | 12.3 | 12.1 |
| 10 | 10 | 10 | Old Fox | 11.6 | 7.0- | 9.4 |
| 10 | 10 | 10 | Old Fox | 10.3 | 13.6 | 11.2 |
| 10 | 20 | 20 | Old Fox | 11.9 | 22.0 | 15.9- |
| 15 | 15 | 15 | Old Fox | 15.7 | 15.6 | 15.6 |
| 20 | 04 | 08 | Old Fox Gro w/Org Nit | 20.5 | 5.2 | 11.4 |
| 36 | | | Old Fox SCU Brand Calcium Nitrate | 38.0 | | |
| Optiflora, Inc. | | | | | | |
| 14 | 12 | 14 | Optimara Violet Food | 14.2 | 10.3- | 12.3- |
| Plant Research Laboratories | | | | | | |
| 01 | 02 | 01 | Oxygen Plus Indoor Plant Food | 1.2 | 2.1 | 1.3 |
| 01 | 03 | 02 | Oxygen Plus African Violet Food | 1.2 | 3.2 | 2.2 |
| 01 | 04 | 02 | Roger's Gard Oxy + Flower Plnt Fd | 1.1 | 3.8 | 2.0 |
| 04 | 04 | 04 | Oxygen Plus Outdoor Cont Plnt Fd | 3.2- | 3.7 | 5.6 |
| Plantabbs Corp. | | | | | | |
| 11 | 15 | 20 | Plantabbs House Plant Food | 12.3 | 14.3 | 20.3 |
| Rapid-Gro Corp. | | | | | | |
| 23 | 19 | 17 | Ra-Pid-Gro Plant Food | 24.2 | 18.5 | 18.8 |
| 23 | 19 | 17 | Ra-Pid-Gro Plant Food | 23.1 | 21.0 | 18.1 |
| 23 | 19 | 17 | Ra-Pid-Gro House Plant Food | 23.2 | 18.7 | 15.6- |
| 23 | 19 | 17 | Ra-Pid-Gro Plant Food | 22.6 | 20.4 | 16.5 |
| 32 | 10 | 10 | Ra-Pid-Gro Evergreen & Azalea Fd | 33.3 | 11.3 | 11.2 |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | Nutrients found, % | | |
|-----------------------------------|----|----|-----------------------------------|--------------------|-------------------------------|------------------|
| | | | | N | P ₂ O ₅ | K ₂ O |
| Rockland Chemical Co. | | | | | | |
| 22 | 04 | 08 | Mil-An-Chem II Turf Fert | 21.3 | 4.5 | 8.8 |
| Ross Daniels, Inc. | | | | | | |
| 05 | 25 | 10 | Ross Gro-Stakes/Tom/Veg | 6.9 | 29.2 | 11.9 |
| 05 | 25 | 15 | Ross/Tree/Shrub Winterizer | 6.5 | 27.8 | 16.4 |
| 05 | 35 | 10 | Ross Plant Food Cart for Iron Def | 7.6 | 42.7 | 12.1 |
| 05 | 35 | 10 | Ross Plant Food Cart for Iron Def | 5.9 | 37.9 | 11.3 |
| 06 | 12 | 06 | Ross Plant Food Spikes Flower Pl | 8.9 | 13.2 | 7.0 |
| 08 | 16 | 16 | Ross Gro-Stakes/Frt/Ornam/Tr/Shrb | 11.4 | 17.7 | 18.4 |
| 08 | 16 | 16 | Ross Gro-Stakes/Frt/Ornam/Tr/Shrb | 10.3 | 16.1 | 18.3 |
| 08 | 16 | 16 | Ross Gro-Stakes/Frt/Ornam/Tr/Shrb | 10.5 | 19.0 | 19.3 |
| 08 | 16 | 16 | Ross Gro-Stakes Fert Frt/Ornam Tr | 11.1 | 18.7 | 18.1 |
| 09 | 46 | 15 | Ross Fruits/Nuts/Tom Cart | 11.8 | 25.7- | 23.7 |
| 09 | 46 | 15 | Ross Plant Food/Fruit/Nuts/Tom | 10.6 | 49.0 | 15.4 |
| 10 | 10 | 10 | Ross Gro-Stakes/Beaut Evergreens | 12.6 | 12.8 | 9.8 |
| 10 | 10 | 10 | Ross Gro-Stakes/Beaut Evergreens | 11.5 | 17.5 | 13.0 |
| 10 | 10 | 10 | Ross Gro-Stakes Fert/Evergreens | 11.8 | 11.7 | 10.6 |
| 10 | 20 | 10 | Ross Planter's Punch | 10.8 | 20.2 | 10.5 |
| 10 | 20 | 20 | Ross Evergreens Root Feeder Cart | 10.8 | 30.5 | 18.3- |
| 14 | 05 | 05 | Ross Plant Food Spikes Fol Plnts | 16.0 | 6.1 | 5.6 |
| 16 | 04 | 08 | Ross Gro-Stakes Fert | 20.7 | 5.3 | 10.3 |
| 16 | 08 | 08 | Ross Gro-Stakes for Prize Roses | 17.0 | 8.4 | 10.1 |
| 16 | 10 | 09 | Ross Gro-Stakes for Trees/Shrubs | 17.8 | 10.8 | 9.3 |
| 16 | 10 | 09 | Ross Gro-Stakes for Trees/Shrubs | 16.4 | 10.5 | 9.1 |
| 16 | 10 | 09 | Ross Gro-Stakes/Trees & Shrubs | 18.2 | 10.2 | 9.3 |
| 16 | 10 | 09 | Ross Gro-Stakes/Trees & Shrubs | 18.2 | 9.9 | 8.8 |
| Schultz Co. | | | | | | |
| 10 | 15 | 10 | Schultz Instant Liquid Plant Food | 10.8 | 15.1 | 10.6 |
| Sierra Chem. Co. | | | | | | |
| 17 | 06 | 10 | Sierra Controlled Release Nutr | 16.4 | 6.8 | 10.4 |
| 18 | 06 | 12 | Osmocote | 18.0 | 8.3 | 13.7 |
| Stern's Nurseries, Inc. | | | | | | |
| 08 | 07 | 06 | Stern's Liq Miracle-Gro/Chel/Iron | 8.2 | 7.9 | 6.2 |
| 08 | 07 | 06 | Stern's Liquid Miracle-Gro Pl Fd | 7.8 | 7.8 | 5.9 |
| 15 | 30 | 15 | Stern's Miracle-Gro Plant Food | 16.4 | 31.0 | 16.2 |
| 15 | 30 | 15 | Miracle-Gro | 18.7 | 32.5 | 15.5 |
| 15 | 30 | 15 | Stern's Miracle-Gro Plant Food | 16.8 | 30.7 | 14.2 |
| 18 | 18 | 21 | Stern's Miracle Gro for Tomatoes | 18.8 | 18.8 | 20.9 |
| 18 | 18 | 21 | Stern's Miracle-Gro For Tomatoes | 16.2- | 18.6 | 21.7 |
| 30 | 10 | 10 | Stern's Miracid Plant Food | 31.5 | 10.2 | 11.5 |
| 30 | 10 | 10 | Stern's Miracid Water Sol | 30.3 | 9.6 | 9.8 |

TABLE 1--Continued

| Manufacturer, guarantee and brand | | | | | | | Nutrients found, % | | |
|---------------------------------------|----|----|-----------------------------------|------|------|-------|--------------------|-------------------------------|------------------|
| | | | | | | | N | P ₂ O ₅ | K ₂ O |
| The Terre Company of New Jersey, Inc. | | | | | | | | | |
| 24 | 03 | 10 | Terre Lawn Spur Fert/CrbGrs | Prev | 25.4 | 3.2 | 11.1 | | |
| Triple XXX Products | | | | | | | | | |
| 07 | 08 | 05 | Triple XXX Rose Maker | | 9.9 | 10.8 | 6.8 | | |
| 09 | 06 | 05 | Triple XXX Free Flow Fert | | 10.8 | 9.8 | 5.0 | | |
| Valagra, Inc. | | | | | | | | | |
| | | 22 | Valagra | | | | | | 22.6 |
| 10 | 20 | 20 | Valagra | | 8.8- | 22.8 | 23.6 | | |
| 15 | 08 | 12 | Valagra | | 22.1 | 9.3 | 9.4- | | |
| 15 | 15 | 15 | Valagra | | 15.2 | 18.3 | 17.6 | | |
| W. R. Grace & Co. | | | | | | | | | |
| 05 | 50 | 17 | Peter's Pro Sol Plnt Fd/Root/Blom | | 7.1 | 51.8 | 20.4 | | |
| 10 | 30 | 20 | Peter's Prof Sol Plnt Fd/Blos/Bst | | 10.8 | 31.8 | 21.7 | | |
| 12 | 36 | 14 | Peters Prof Sol Plnt Fd/Indoor | | 13.3 | 37.8 | 15.7 | | |
| 12 | 36 | 14 | Peters Prof Sol Plnt Fd/Afr Viol | | 11.9 | 40.4 | 14.7 | | |
| 12 | 36 | 14 | Peters Prof Sol Plant Fd | | 13.1 | 40.3 | 14.7 | | |
| 15 | 30 | 15 | Peters Prof Plnt Fd/Houseplants | | 16.6 | 31.4 | 17.5 | | |
| 15 | 30 | 15 | Peters Prof House Plant Food | | 15.9 | 27.6- | 18.5 | | |
| 17 | 06 | 06 | Peter's Prof Sol Plnt Fd/Acid Spc | | 21.0 | 6.0 | 4.5- | | |
| 20 | 20 | 20 | Peter's Prof Sol Plnt Fd Gen Purp | | 20.0 | 20.2 | 19.7 | | |
| 20 | 20 | 20 | Peter's Prof Plant Food-Gen Purp | | 21.0 | 20.5 | 22.7 | | |
| 21 | 07 | 07 | Peter's Spec Sol Plnt Fd/In/Out | | 22.8 | 9.0 | 8.2 | | |
| 30 | 10 | 10 | Peters Prof Sol Plant Fd/Orchid | | 30.3 | 11.8 | 12.7 | | |
| 30 | 10 | 10 | Peters Prof Sol Plant Fd/Orchid | | 30.0 | 12.0 | 12.4 | | |
| 30 | 10 | 10 | Peters Prof Sol Plant Fd/Orchid | | 30.5 | 11.4 | 12.1 | | |
| WGM/Hydro | | | | | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 15.0 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 14.9 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 14.8 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 15.6 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 14.9 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 15.0 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 15.2 | | | | | |
| 15.5 | | | Viking Ship Brand Calcium Nitrate | 14.8 | | | | | |

TABLE 2--SUMMARY FOR EACH MANUFACTURER OF NUMBER OF CLAIMS FOR INDIVIDUAL PLANT NUTRIENTS, PERCENTAGE OF CLAIMS NOT MEETING GUARANTEE, AND AVERAGE PERCENTAGE OF GUARANTEE FOR EACH NUTRIENT

| Company | Number Samples | Number of Claims | | | % Not Meeting Claim | | | Average % of Claim | | |
|---------------------|----------------|------------------|-------------------------------|------------------|---------------------|-------------------------------|------------------|--------------------|-------------------------------|------------------|
| | | N | P ₂ O ₅ | K ₂ O | N | P ₂ O ₅ | K ₂ O | N | P ₂ O ₅ | K ₂ O |
| A.H. Hoffman | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 120 | 100 | 110 |
| Ag. Ind. Mfg. | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 108 | - | - |
| Agric. Prod. | 2 | 2 | 2 | 2 | 0 | 50 | 0 | 109 | 85 | 102 |
| Agway | 24 | 22 | 23 | 24 | 5 | 9 | 13 | 104 | 110 | 111 |
| Amer. Hdw. Supply | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 100 | 120 | 120 |
| Atlas Fish Fert. | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 113 | 160 | 185 |
| Cadwell & Jones | 49 | 49 | 47 | 47 | 10 | 4 | 4 | 106 | 108 | 112 |
| Cedar Point Supply | 1 | 1 | 0 | 0 | 0 | - | - | 97 | - | - |
| Chevron | 14 | 14 | 14 | 14 | 0 | 0 | 0 | 115 | 113 | 113 |
| Clarel | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 100 | 108 | 127 |
| Clinton Nursery | 5 | 5 | 5 | 5 | 20 | 0 | 0 | 109 | 113 | 128 |
| Crop Prod. Serv. | 19 | 18 | 19 | 18 | 11 | 11 | 22 | 108 | 111 | 115 |
| Dexol Ind. | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 109 | 128 | 110 |
| Earth Gro | 1 | 1 | 1 | 1 | 0 | 100 | 100 | 130 | 60 | 40 |
| Espoma | 4 | 4 | 4 | 3 | 0 | 0 | 33 | 145 | 189 | 130 |
| Estech | 16 | 15 | 16 | 15 | 7 | 50 | 27 | 109 | 88 | 106 |
| Grassroots | 1 | 1 | 1 | 1 | 0 | 100 | 0 | 102 | 78 | 108 |
| H.K.Webster | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 121 | 103 | 125 |
| Hy-Trous | 3 | 3 | 3 | 3 | 33 | 0 | 0 | 100 | 104 | 113 |
| Hyponex | 16 | 16 | 16 | 16 | 13 | 0 | 0 | 110 | 115 | 114 |
| International Spike | 20 | 20 | 20 | 20 | 0 | 0 | 10 | 130 | 127 | 126 |
| J.T.Baker Chem. | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 114 | 102 | 122 |
| Kalium Chem. | 1 | 0 | 0 | 1 | - | - | 0 | - | - | 101 |
| Kenco Chem. | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 115 | 102 | 104 |
| Lebanon Chem. | 3 | 3 | 3 | 3 | 0 | 33 | 0 | 110 | 86 | 107 |
| Lesco | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 106 | 100 | 105 |
| Milwaukee Metropol. | 1 | 1 | 1 | 0 | 0 | 0 | - | 107 | 200 | - |
| Nitrochem. | 1 | 1 | 0 | 0 | 0 | - | - | 102 | - | - |
| NOR-AM | 2 | 2 | 0 | 0 | 0 | - | - | 102 | - | - |
| O.M.Scott | 5 | 5 | 4 | 4 | 0 | 0 | 0 | 103 | 113 | 119 |
| Old Fox Chem. | 37 | 37 | 36 | 36 | 0 | 17 | 14 | 119 | 110 | 119 |
| Optflora | 1 | 1 | 1 | 1 | 0 | 100 | 100 | 101 | 86 | 88 |
| Plant Research | 4 | 4 | 4 | 4 | 25 | 0 | 0 | 108 | 100 | 120 |
| Plantabbs | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 112 | 95 | 102 |
| Rapid-Gro | 5 | 5 | 5 | 5 | 0 | 0 | 20 | 101 | 104 | 105 |
| Rockland Chem. | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 97 | 113 | 110 |
| Ross Daniels | 23 | 23 | 23 | 23 | 0 | 4 | 4 | 124 | 114 | 113 |
| Schultz | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 108 | 101 | 106 |
| Sierra Chem. | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 98 | 126 | 109 |
| Stern's Nursery | 9 | 9 | 9 | 9 | 11 | 0 | 0 | 105 | 105 | 103 |
| The Terre Co. | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 106 | 107 | 111 |
| Triple XXX Prod. | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 131 | 149 | 118 |
| Valagra | 4 | 3 | 3 | 4 | 33 | 0 | 25 | 112 | 117 | 104 |
| W.R.Grace | 14 | 14 | 14 | 14 | 0 | 7 | 7 | 109 | 109 | 103 |
| WGM/Hydro | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 97 | - | - |

TABLE 3--DISTRIBUTION OF MIXED FERTILIZERS SOLD IN CONNECTICUT JULY 1, 1985-JUNE 30, 1986

| Grade | Tons | Grade | Tons | Grade | Tons |
|----------|------|----------|------|---------------|-------|
| 00-10-40 | 298 | 12-04-08 | 101 | 25-03-03 | 135 |
| 00-15-30 | 50 | 15-08-12 | 499 | 25-05-10 | 138 |
| 04-06-04 | 665 | 15-10-05 | 2 | 26-03-03 | 71 |
| 05-10-05 | 1081 | 15-10-10 | 1126 | 27-03-03 | 825 |
| 05-10-10 | 773 | 15-15-15 | 697 | 30-00-00 | 180 |
| 05-20-10 | 1 | 15-30-15 | 222 | 30-10-10 | 184 |
| 10-05-05 | 258 | 16-04-08 | 94 | 32-04-04 | 99 |
| 10-06-04 | 2052 | 16-08-08 | 21 | 32-05-07 | 95 |
| 10-10-10 | 4563 | 20-05-10 | 385 | TOTAL | 15944 |
| 10-15-15 | 79 | 20-10-10 | 48 | MISCELLANEOUS | 25934 |
| 10-20-10 | 585 | 20-10-20 | 187 | | |
| 10-20-20 | 349 | 20-20-20 | 27 | GRAND TOTAL | 41878 |

TABLE 4--TONNAGE OF FERTILIZER MATERIAL AND MIXED FERTILIZERS SOLD IN CONNECTICUT JULY 1, 1985-JUNE 30, 1986

| Commodity | Tons | Commodity | Tons |
|-----------------------------|--------|-------------------------------|---------|
| CHEMICAL NITROGEN | | NATURAL ORGANICS | |
| Ammonium nitrate | 84 | Blood, dried | 4.2 |
| Ammonium phosphate nitrate | 226 | Blood meal | 1 |
| Ammonium sulfate | 25 | Cottonseed meal | 1.2 |
| Calcium nitrate | 93 | Manure, cow, composted | 14 |
| Nitrate of soda | 3 | Manure, cattle, dried | 2536 |
| Nitrogen solutions | 114 | Manure, poultry, dried | 23 |
| Other nitrogen materials | 319 | TOTAL | 2579.4 |
| Sodium nitrate | 3 | | |
| Urea | 3272 | MULTINUTRIENT | |
| Ureaform | 0.3 | Ammoniated phosphate | 49 |
| TOTAL | 4107.3 | Ammoniated phosphate/sulfate | 1.2 |
| | | TOTAL | 50.2 |
| PHOSPHATES | | SECONDARY AND MICONUTRIENTS | |
| Bone meal, raw | 9 | Aluminum sulfate | 4 |
| Bone meal, steamed | 55 | Borax | 16.7 |
| Phosphate rock | 5 | Ferrous sulfate | 0.4 |
| Superphosphate | 8.6 | Greensand | 2 |
| Superphosphate, 18% | 2 | Iron, chelated | 1 |
| Superphosphate, 20% | 3.5 | Iron, liquid | 67.1 |
| Superphosphate, 40% | 149 | Magnesium oxide | 1.4 |
| Other phosphate materials | 13 | Magnesium sulfate | 2 |
| TOTAL | 245.1 | Sulfur | 2.4 |
| POTASH | | Zinc | 0.1 |
| Muriate of potash | 1930 | Miscellaneous | 14.7 |
| Muriate of potash, 60% | 111 | TOTAL | 111.8 |
| Potassium nitrate | 5.6 | | |
| Potassium sulfate | 52 | TOTAL--COMMODITIES | 9232.4 |
| Sulfate of potash/magnesium | 7 | TOTAL--COMMERCIAL FERTILIZERS | 41878 |
| Other potash | 1 | GRAND TOTAL | 50110.4 |
| TOTAL | 2106.6 | | |



The Connecticut Agricultural Experiment Station,

founded in 1875, is the first experiment station in America. It is chartered by the General Assembly to make scientific inquiries and experiments regarding plants and their pests, insects, soil and water, and to perform analyses for State agencies. The laboratories of the Station are in New Haven and Windsor; its Lockwood Farm is in Hamden. Single copies of bulletins are available free upon request to Publications; Box 1106; New Haven, Connecticut 06504.

ISSN 0097-0905



University of
Connecticut
Libraries



39153028938647

